DETAILED ESTIMATE

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to Roads and Drains at Anjanadri Layout and Surrounding Area in Ward No 06 Thanisandra

								Estimation Cost.Rs	20000000.00
Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
1	18.27 KSRRB M200-15.2. Dismantling of existing structures like culverts,bridges, retaining walls and other structure comprising of masonry, cementconcrete, wood work, steel work, including T&P and scaffolding wherevernecessary, sorting the dismantled material, disposal of unserviceablematerial and stacking the serviceable material with all liftsas per specifications. iii)Dismantling Stone Masonry. B. Rubble Stone masonry in cement mortar.No. KBS Pg No 140 ,Item No 18.27,								
	SSM Culvert								
	Main Road	Cum	2	8.50	0.45	0.60	4.59		
	Basic rate	351.00							
	Area weightage 6%	21.06							
	5Km lead & Lift= 57+(2*1.28*5)	69.80							
	Sub Total	**441.86**							
	Total						**4.59**	**441.86**	**2028.14**
2	KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. Page No. 139, Item No.18.18 and Pg No.136, Item No.17.4,17.1 (5km lead = 57+2*1.28X5) P- 139								
	Culvert Deck Slab								
	Main Road	Cum	1	8.50	1.50	0.23	2.93		
	Basic rate	557.00							
	Area weightage 6%	33.42							
	5Km lead & Lift= 57+(2*1.28*5)	69.80							
	Sub Total	**660.22**							
	Total						**2.93**	**660.22**	**1936.10**
3	KSRRB 300-1. **Earthwork excavation by manual means for roads,** drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	New Drain								
	Anjanadri Layout								
	Durgamba Main Road	Cum	2	294	1.2	1.05	740.88		
	Cross Road	Cum	1	30.5	1.05	1.05	33.62625		
	Cross Road	Cum	1	31	1.05	1.05	34.1775		
	Cross Road -2	Cum	1	115	1.05	1.05	126.7875		
	Main Road	Cum	1	180	1.2	1.05	226.8		
	4th Cross Road	Cum	1	113.5	1.05	1.05	125.13375		
	3rd Main Cross Road	Cum	1	124	1.05	1.05	136.71		
	Drain Connecting	Cum	1	73	1.05	1.20	91.98		
	1st Main Road	Cum	1	141	1.05	1.05	155.4525		
	2nd Main Road	Cum	1	140	1.05	1.05	154.35		
	3rd Main Road	Cum	1	152	1.2	1.05	191.52		
	4th Main Road	Cum	1	151	1.05	1.05	166.4775		
	New CC Culvert								
	Anjanadri Layout								
	Durgamba Main Road	Cum	7	4.70	1.50	1.10	54.29		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Main Road	Cum	1	8.50	2.10	1.10	19.64		
		Cum	4	4.70	1.80	1.10	37.22		
	3rd Main Cross Road	Cum	1	6.00	1.80	1.10	11.88		
	Basic rate	130.00							
	Area weightage 6%	7.80							
	5Km lead & Lift= 57+(2*1.28*5)	69.80							
	Sub Total	**207.60**							
	Total						**2306.92**	**207.60**	**478916.38**
4	KSRRB M2100 PCC 1 KSRRB M2100-10. Providing and laying Plain cement concrete of mix1:3:6 with OPC cement @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days Including cost of materials,labour, HOM curing form work, Scaffolding and Centering complete as per specifications.MORTH Specification No. 2100 Pg no:222 Item no:27.18								
	New Drain								
	Anjanadri Layout								
	Durgamba Main Road	Cum	2	294	1.2	0.15	105.84		
	Cross Road	Cum	1	30.5	1.05	0.15	4.80375		
	Cross Road	Cum	1	31	1.05	0.15	4.8825		
	Cross Road -2	Cum	1	115	1.05	0.15	18.1125		
	Main Road	Cum	1	180	1.2	0.15	32.4		
	4th Cross Road	Cum	1	113.5	1.05	0.15	17.87625		
	3rd Main Cross Road	Cum	1	124	1.05	0.15	19.53		
	Drain Connecting	Cum	1	73	1.05	0.15	11.4975		
	1st Main Road	Cum	1	141	1.05	0.15	22.2075		
	2nd Main Road	Cum	1	140	1.05	0.15	22.05		
	3rd Main Road	Cum	1	152	1.2	0.15	27.36		
	4th Main Road	Cum	1	151	1.05	0.15	23.7825		
	For New CC Culvert								
	Anjanadri Layout								
	Durgamba Main Road	Cum	7	4.70	1.50	0.15	7.40		
	Main Road	Cum	1	8.50	2.10	0.15	2.68		
		Cum	4	4.70	1.80	0.15	5.08		
	3rd Main Cross Road	Cum	1	6.00	1.80	0.15	1.62		
	For CC Road								
	Cross Road	Cum	1	30.5	4	0.15	18.3		
	Cross Road	Cum	1	31	4	0.15	18.6		
	Cross Road -2	Cum	1	61	4.3	0.15	39.345		
	4th Cross Road	Cum	1	113.5	3.5	0.15	59.5875		
	3rd Main Cross Road	Cum	1	148	3.25	0.15	72.15		
	Basic rate	5115.00							
	Area weightage 6%	306.90							
	Sub Total	5421.90							
	Total						**535.10**	**5421.90**	**2901264.11**
5	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)								

Description of work	Unit	Mesurement				Qty	Rate	Amount
		No.	L	B	D			
New Drain								
Bottom Raft								
Anjanadri Layout								
Durgamba Main Road	Cum	2	294.00	1.20	0.15	105.84		
Cross Road	Cum	1	30.50	1.05	0.15	4.80375		
Cross Road	Cum	1.00	31.00	1.05	0.15	4.8825		
Cross Road -2	Cum	1	115.00	1.05	0.15	18.1125		
Main Road	Cum	1	180.00	1.20	0.15	32.4		
4th Cross Road	Cum	1	113.50	1.05	0.15	17.87625		
3rd Main Cross Road	Cum	1	124.00	1.05	0.15	19.53		
Drain Connecting	Cum	1	73.00	1.05	0.15	11.4975		
1st Main Road	Cum	1	141.00	1.05	0.15	22.2075		
2nd Main Road	Cum	1	140.00	1.05	0.15	22.05		
3rd Main Road	Cum	1	152.00	1.20	0.15	27.36		
4th Main Road	Cum	1	151.00	1.05	0.15	23.7825		
Side Walls								
Anjanadri Layout								
Durgamba Main Road	Cum	4	294.00	0.15	0.75	132.30		
Cross Road	Cum	2	30.50	0.15	0.75	6.86		
Cross Road	Cum	2	31.00	0.15	0.75	6.98		
Cross Road -2	Cum	2	115.00	0.15	0.75	25.88		
Main Road	Cum	2	180.00	0.15	0.75	40.50		
4th Cross Road	Cum	2	113.50	0.15	0.75	25.54		
3rd Main Cross Road	Cum	2	124.00	0.15	0.75	27.90		
Drain Connecting	Cum	2	73.00	0.15	0.90	19.71		
1st Main Road	Cum	2	141.00	0.15	0.75	31.73		
2nd Main Road	Cum	2	140.00	0.15	0.75	31.50		
3rd Main Road	Cum	2	152.00	0.15	0.75	34.20		
4th Main Road	Cum	2	151.00	0.15	0.75	33.98		
				Sub Total		**727.40**		
New Culvert								
Bottom Raft								
Anjanadri Layout								
Durgamba Main Road	Cum	7	4.70	1.50	0.20	9.87		
Main Road	Cum	1	8.5	2.1	0.2	3.57		
	Cum	4	4.7	1.8	0.2	6.77		
3rd Main Cross Road	Cum	1	6.00	1.80	0.20	2.16		
Side Walls								
Anjanadri Layout								
Durgamba Main Road	Cum	14	4.70	0.20	0.75	9.87		
Main Road	Cum	2	8.50	0.20	0.75	2.55		
		8	4.70	0.20	0.75	5.64		
3rd Main Cross Road	Cum	2	6.00	0.20	0.75	1.80		
				Sub Total		**42.23**		
Basic rate	6670.00							
Area weightage 6%	400.20							
Sub Total	7070.20							
Total						**769.63**	**7070.20**	**5441441.56**

Description of work	Unit	Mesurement				Qty	Rate	Amount
		No.	L	B	D			
KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2 issue Rate								
For Drain	Cum	From item no.5				727.40		
	kg	Steel assumed 60Kg/Cum of Concrete				43644.15		
	tonne					43.64		
For Culvert	Cum	From item No 05				42.23		
	kg	Steel assumed 90Kg/Cum of Concrete				3800.52		
	tonne					3.80		
Basic rate	61365.00							
Area weightage 6%	3681.90							
Sub Total	65046.90							
Total						**47.44**	**65046.90**	**3086128.71**
Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
Anjanadri Layout								
Durgamba Main Road	Sqm	2	294.00	0.90		529.20		
Cross Road	Sqm	1	30.50	0.75		22.88		
Cross Road	Sqm	1.00	31.00	0.75		23.25		
Cross Road -2	Sqm	1	115.00	0.75		86.25		
Main Road	Sqm	1	180.00	0.90		162.00		
4th Cross Road	Sqm	1	113.50	0.75		85.13		
3rd Main Cross Road	Sqm	1	124.00	0.75		93.00		
Drain Connecting	Sqm	1	73.00	0.75		54.75		
1st Main Road	Sqm	1	141.00	0.75		105.75		
2nd Main Road	Sqm	1	140.00	0.75		105.00		
3rd Main Road	Sqm	1	152.00	0.90		136.80		
4th Main Road	Sqm	1	151.00	0.75		113.25		
Data Rate	**2337.00**							
Total						**1517.25**	**2337.00**	**3545813.25**
Providing and Fixing pre cast covering Slab 250mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incha								
New Culvert								
Anjanadri Layout								
Durgamba Main Road	Sqm	7	4.70	1.20		39.48		
Main Road	Sqm	1	8.50	1.80		15.30		
	Sqm	4	4.70	1.50		28.20		
3rd Main Cross Road	Cum	1	6.00	1.50		9.00		
Data rate	**5418.00**							
Total						**91.98**	**5418.00**	**498347.64**
KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)								
For New CC Road								

	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Cross Road	Cum	1	30.50	4.00	0.45	54.90		
	Cross Road	Cum	1.00	31.00	4.00	0.45	55.80		
	Cross Road -2	Cum	1	61.00	4.30	0.45	118.04		
	4th Cross Road	Cum	1	113.50	3.50	0.45	178.76		
	3rd Main Cross Road	Cum	1	148.00	3.25	0.45	216.45		
	Basic rate	41.00							
	Area weightage 6%	2.46							
	5Km lead= (2*1.28*5)	12.80							
	Sub Total	**56.26**							
	Total						**623.95**	**56.26**	**35103.29**
	KSRRB 300-58. Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-147)								
	Cross Road	Sqm	1	30.50	4.00		122.00		
	Cross Road	Sqm	1.00	31.00	4.00		124.00		
	Cross Road -2	Sqm	1	61.00	4.30		262.30		
	4th Cross Road	Sqm	1	113.50	3.50		397.25		
	3rd Main Cross Road	Sqm	1	148.00	3.25		481.00		
	Basic rate	6.00							
	Area weightage 6%	0.36							
	Sub Total	6.36							
	Total						**1386.55**	**6.36**	**8818.46**
1	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications Clause 401 of MORTH V Revision.(I No-20.5,P No-153)								
	New Road								
	Cross Road	Cum	1	30.5	4	0.15	18.3		
	Cross Road	Cum	1	31	4	0.15	18.6		
	Cross Road -2	Cum	1	61	4.3	0.15	39.345		
	4th Cross Road	Cum	1	113.5	3.5	0.15	59.5875		
	3rd Main Cross Road	Cum	1	148	3.25	0.15	72.15		
	Basic rate	1882.00							
	Area weightage 6%	112.92							
	Sub Total	1994.92							
	Total						**207.98**	**1994.92**	**414908.45**
2	Cement concrete pavement.Construction of un-reinforced plain cement concrete for pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008.mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire charges of machineries,all lead and lift charges etc., complete as per specifications. - do with OPC at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum Pg No.176Item No.22.6.1								

Description of work	Unit	Mesurement				Qty	Rate	Amount
		No.	L	B	D			
Cross Road	Cum	1	30.50	4.00	0.15	18.30		
Cross Road	Cum	1	31.00	4.00	0.15	18.60		
Cross Road -2	Cum	1	61.00	4.30	0.15	39.35		
4th Cross Road	Cum	1	113.50	3.50	0.15	59.59		
3rd Main Cross Road	Cum	1	148.00	3.25	0.15	72.15		
Basic rate	4916.00							
Area weightage 6%	294.96							
sub Total	**5210.96**							
Total						**207.98**	**5210.96**	**1083788.49**
							Grand Total	**17498494.57**
							DPR Charges (1% of estimated cost)	**200000.00**
							Project management And Consultancy Charges(1% of estimated cost)	**200000.00**
							GST Charges (12% of estimated cost)	**2099819.35**
							Miscellenious and rounding	**1686.09**
							Total Amount	**20000000.00**
							RUPEES TWO CRORE ONLY	

Technical Sanction
Accorded For Rs 200.00 Lakhs only
Head of A/C P 3075
CER NO : 91 Dt: 20.08.2020
TA
CE (YNK)

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Executive Engineer
BBMP

ADMINISTRATIVE APPROVAL
Accorded For Rs 200.00 Lakhs
Head of A/C P 3075,
Div. Ref. No 57 Date 15/12/2020
AE 15/12
EE(BTP) 15/12